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GENERAL STUDIES (TEST CODE : 1153)

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Center	HOME	Date	08/09/18

INDEX TABLE			INSTRUCTIONS
Q. No.	Maximum Marks	Marks Obtained	
1	10		<ol style="list-style-type: none">Do furnish the appropriate details in the answer sheet (viz. Name, Registration Number and Test Code). उत्तर पुस्तिका में सूचनाएं भरना आवश्यक है (नाम, प्रश्न-पत्र कोड, विद्यार्थी क्रमांक आदि)।There are TWENTY questions printed in ENGLISH & HINDI इसमें बीस प्रश्न हैं अंग्रेजी और हिन्दी में छपे हैं।All questions are compulsory. सभी प्रश्न अनिवार्य हैं।The number of marks carried by a question/part is indicated against it. प्रत्येक प्रश्न/भाग के अंक उसके सामने दिए गए हैं।Answers must be written in the medium authorized in the Admission Certificate, which must be stated clearly on the cover of this Question-Cum-Answer (QCA) Booklet in the space provided. No marks will be given for answers written in medium other than the authorized one. प्रश्नों के उत्तर उसी माध्यम में लिखे जाने चाहिए जिसका उल्लेख आपके प्रवेश पत्र में किया गया है और उस माध्यम का स्पष्ट उल्लेख प्रश्न-सह-उत्तर (क्यूसीए) पुस्तिका के मुख्य पृष्ठ पर अंकित निर्दिष्ट स्थान पर किया जाना चाहिए। उल्लिखित माध्यम के अतिरिक्त अन्य किसी माध्यम में लिए गए उत्तर पर कोई अंक नहीं मिलेंगे।Word limit in questions, if specified, should be adhered to. प्रश्नों में शब्द सीमा, जहाँ विनिर्दिष्ट है, का अनुसरण किया जाना चाहिए।Any page or portion of the page left blank in the Question-Cum-Answer Booklet must be clearly struck off. उत्तर पुस्तिका में खाली छोड़ा हुआ पृष्ठ या उसके अंश को स्पष्ट रूप से काटा जाना चाहिए।
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Total Marks Obtained:			
Remarks:			

16-B, 2nd Floor, Above National Trust Building, Bada Bazar Marg, Old Rajinder Nagar, Delhi-110060

M-1/4, Plot No-A-12/13, 1st Floor, Ansal Building, Dr. Vidya Sagar Homeopathic Clinic, Mukherjee Nagar, Delhi-110009

EVALUATION INDICATORS

1. Contextual Competence
2. Content Competence
3. Language Competence
4. Introduction Competence
5. Structure - Presentation Competence
6. Conclusion Competence

Overall Macro Comments / feedback / suggestions on Answer Booklet:

1.

2.

3.

4.

5.

6.

1. Highlighting the issues faced in BOT and EPC models of infrastructure investment, explain how HAM can address these. (150 words) 10

अवसंरचना निवेश के BOT एवं EPC मॉडल के समझ आने वाली समस्याओं पर प्रकाश डालते हुए व्याख्या कीजिए कि HAM इनका किस प्रकार समाधान कर सकता है।

BOT and EPC are public private partnership model for finance and implementation of various public projects.

Issues faced by BOT & EPC

1) BOT → Built operate Transfer.

Finance → 100% by concessionaire.

Transferred to government after cost is recovered through revenue of project.

→ Lack of availability of finance due to twin balance sheet problem.

→ Full risk on concessionaire for implementation and finance.

2) EPC → Engineering Procurement Construction.

Finance → 100% by govt.

Concessionaire implement & transfers asset to govt.

→ Lack of funds with government.

→ Lack of accountability of contractor → cost &

Time overruns.

HAM is Hybrid Annuity Model based on hybrid between BOT & EPC

HAM (40% EPC + 60% BOT Annuity)

↳ Govt. pays 40% cost in 5 yearly installments.

↳ 60% of cost is payed after implementation based on pre-decided timelines.

↳ Management by govt.

Hence, it is improvement over BOT & EPC as:-

- 1) Risks divided between concessionaire and govt.
- 2) Banks fund more readily as 40% support by govt.
- 3) Management by govt. reduces risk due to change in commercial viability of product.

Hence, Govt has introduced HAM in highway and sewage treatment plant construction.

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कुछ ना लिखें)

2. The investment rate in India has gradually declined after a historic high in the mid 2000s. Examine the reasons behind this trend. Discuss the steps required to revive investment for a sustained growth. (150 words) 10

भारत में निवेश दर, 21वीं सदी के प्रथम दशक के मध्य में एक ऐतिहासिक उच्चान के उपरांत निरंतर घटती रही है। इस प्रवृत्ति के पीछे निहित कारणों का परीक्षण कीजिए। निरंतर वृद्धि हेतु निवेश को पुनर्जीवित करने के लिए आवश्यक कदमों पर चर्चा कीजिए।

According to economic survey 2018, the investment rate has declined from high of 36% in 2006-07 to 28% in 2018 due to following reasons:-

- 1) Decline in private investment (corporate sector) due to over leveraged balance sheet.
- 2) High NPA (R. 2% of assets) in banking sector.
- 3) Poor capacity utilization of the previous investment due to decline in demand post global financial crisis.
- 4) Structural change in real estate sector due to implementation of RERA, demonetisation etc.

Following steps can be taken to revive investment :-

- 1) Increase public capital expenditure :-
 - (i) Road construction → Bharatmala .
 - (ii) Housing → PMAY
 - (iii) Others like irrigation, energy etc .
- 2) Attract FDI to counter fund crunch
 - (i) NIF for infrastructure .
 - (ii) Ease of Doing Business to attract MNCs
 - (iii) External commercial borrowing by corporate sector .
- 3) NPA resolution
Through Project SASAKT and IBC .
- 4) Boost demand
 - (i) Public procurement .
 - (ii) Tax concessions .
 - (iii) Exports .

Hence, holistic approach to improve demand-supply is way forward.

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Hence, holistic approach to improve demand-supply is way forward.

3. The measurement of the extent of formal sector and formal employment is yet an unsettled matter in our economy. Comment. Also, mention the steps which the government has taken to improve its extent. (150 words) 10
- औपचारिक क्षेत्रक और औपचारिक रोजगार के विस्तार का मापन हमारी अर्थव्यवस्था में अभी भी एक अनसुलझा मामला है। टिप्पणी कीजिए। साथ ही, इसके विस्तार में सुधार हेतु सरकार द्वारा उठाए गए कदमों का उल्लेख कीजिए।

Formal sector usually refers to sectors where employee is provided with some kind of social security like pension, insurance etc.

It is an unsettled matter due to different ways of measuring it:-

- 1) Factory Act 1948 → it defines formal sector with those employing more than 10 persons.
- 2) Based on social security net in Employment - Unemployment Surveys (around 86% is informal)
- 3) Economic Survey 2018
 - GST net (54% formal)
 - social security (31% formal)
 - ↳ % of non agri sector employment (EPFO, EIS etc.)

Although, definition differs but a major portion of economy is informal (90%).
GOI has taken following steps for formalization

1) GST :- All firms above threshold (20 lakh) have to register.

2) Labour law reforms :-

(i) code on social security :- Universal Account Number for all workers.

(ii) Udyog Aardham Memorandum.

(iii) Extension of Employee State Insurance scheme to all districts.

3) Digitalization :- It will encourage formalization of economy as a whole.

Hence, with fast implementation of Digital India and JAM trinity, formalization is expected to increase.

4. Minimum Support Price (MSP) of crops is a short term solution for agricultural distress which creates long term problems. Examine. Suggest measures to overcome the the limitations of the MSP regime. (150 words) 10

फसलों के लिए न्यूनतम समर्थन मूल्य (MSP) कृषि संकट का एक अल्पकालिक समाधान है जो दीर्घकालीन समस्याएं पैदा करता है। परीक्षण कीजिए। MSP व्यवस्था की कमियों से निजात पाने हेतु उपाय सुझाइए।

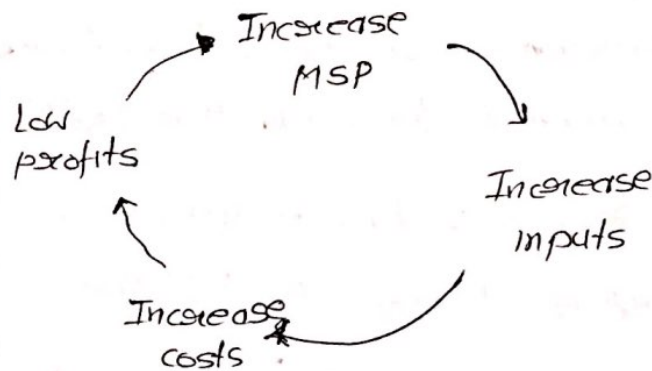
Minimum Support Price is the floor price at which govt. procures ~~crop~~ crops from farmers if price in market fall below that level.

In budget 2018 GoI has announced to increase MSP of all crops to 1.5 times of their input costs (C2+FL). However it creates several problems:-

Benefits → Assured price to farmers.
→ Assured procurement
→ Increasing farmers' income.

Issues → (C2+FL) cost used to calculate MSP provides low margin to farmers.
→ Distorts the cropping patterns
→ Actual procurement is for 2-3 crops
→ Regional disparity (eastern area doesn't benefit from MSP)

According to report by Shanta Kumar committee the MSP affects less than 10% of farmers.



Hence following alternatives can be taken:-

- 1) Price Deficiency System:- Govt. pays differential between MSP & market price. Eg:- Bhavantar Bhugtan Yojana in MP.
- 2) Direct income support:- Eg:- Kythi Bandhu scheme in Telangana (₹ 4000 per acre)

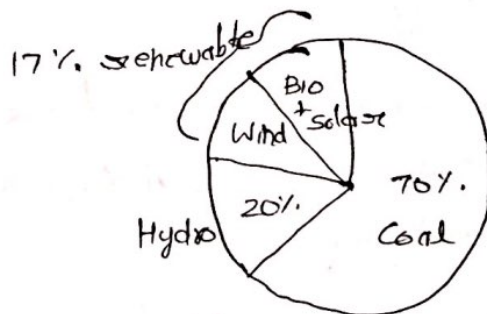
Hence, alternative which are more sustainable need to ~~be~~ ~~in~~ replace MSP in the long term.

5. Enumerating the factors that determine a nation's energy-mix, comment on the need for having a diversified fuel basket for meeting India's future energy demands. **(150 words) 10**

किसी राष्ट्र के ऊर्जा-समिश्र (एनर्जी-मिक्स) को निर्धारित करने वाले कारकों को सूचीबद्ध करते हुए, भारत की भावी ऊर्जा मांगों को पूरा करने हेतु एक विविधकृत फ्यूल बास्केट के होने की आवश्यकता पर टिप्पणी कीजिए।

Nation's energy mix refers to the share of different sources for production and consumption of energy in the country.

India's energy mix.



Hence, India's energy mix is tilted towards coal. Following factors determine energy mix.

- 1) Availability of raw material (coal, oil etc)
- 2) Development of technology (nuclear, solar, wind)
- 3) stage of development (Developed country like Germany have 100% renewable)
- 4) Cost of production (import of oil is costly so less oil fired power plants in India)

A diversified energy basket is essential for India's energy future as:-

1) Draft energy policy focuses on economic growth, affordability, low import dependence which require diversification.

2) Environment → INDC in Paris treaty to concerns increase renewables to 40% by 2030

3) Health concern → use of fuel wood for cooking causes indoor air pollution.

4) Accessibility → Non-renewable sources will be exhausted completely by end of century.

5) New technology like EVs, solar panels etc will reduce cost of non-renewable.

Hence, we need to increase share of renewables via increase in solar, biofuel, nuclear, wind etc. as way forward.

6. Air quality in Indian households, especially in rural areas, is lethal due to a number of factors. In this context, highlighting the challenges faced in improving indoor air quality, enumerate the measures that can be taken to address them. **(150 words) 10**

भारतीय घरों में, विशेषकर ग्रामीण क्षेत्रों में, वायु की गुणवत्ता कई कारकों से प्राणघातक है। इस संदर्भ में, घरों के भीतर वायु की गुणवत्ता में सुधार लाने में सामने आने वाली चुनौतियों पर प्रकाश डालते हुए उनसे निपटने हेतु अपनाये जा सकने वाले उपायों को सूचीबद्ध कीजिए।

According to Census 2011, 56% of households still depend on fuel wood for cooking. It lead to following problems:-

- poor women & child health
- time consumption in fuel wood collection.

Hence, GoI launched Ujjwala Yojana with aim to cover 4 crore household with LPG connection in next 3 yrs.

Results:-

- 1) According to Economic Survey 2018, LPG connection increased to 74% household.
- 2) Average refill - 4 per year.

Yet, it faceds following challenges:-

- 1) Low no. of refills compared to national average of 6.7.

- 2) Lack of distribution network in rural areas.
- 3) High cost of cylinders.
- 4) Behavioural issues → taste of firewood based food is better.

Thus following steps can be taken to improve adoption :-

- 1) Increase price support to BPL household identified via SECC.
- 2) Alternate to LPGs (solar based electric cookers)
- 3) Incentives to dealers in rural areas like tax concession etc.
- 4) Initiatives like LPG panchayat for awareness generation.

Hence, due to its multifold benefits the LPG use needs to be promoted.

7. Highlight the characteristics and applications of Cyber Physical systems. Also, enumerate the various objectives of the Cyber Physical Systems programme recently launched by the government. **(150 words) 10**

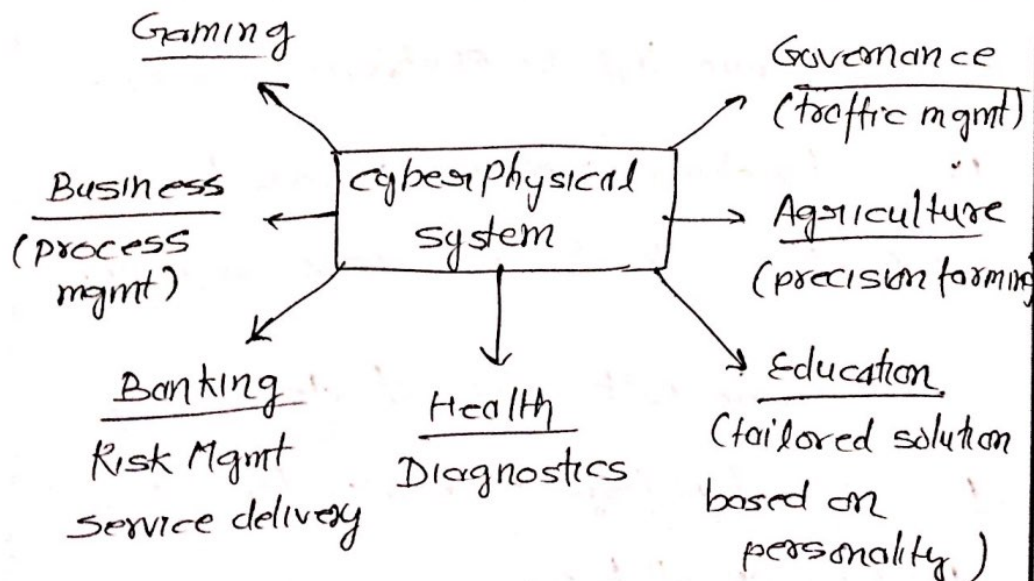
साइबर भौतिक प्रणालियों (साइबर फिजिकल सिस्टम) की विशेषताओं और अनुप्रयोगों पर प्रकाश डालिए। साथ ही, हाल ही में सरकार द्वारा आरंभ किए गए साइबर भौतिक प्रणाली कार्यक्रम के विभिन्न उद्देश्यों को सूचीबद्ध कीजिए।

Cyber Physical Systems refer to any system that use computational powers to perform a task like AI, IoT, Bigdata, Robotics, Blockchain etc.

characteristics

- 1) Include both hardware and software.
- 2) characterized by high storage, computation capacity compared to traditional computers

Applications:-



As announced in Budget 2018 GoT has launched Cyber Physical System program with following objectives:-

- 1) Performing world class R&D related to emerging technologies.
- 2) Develop certain institute of excellence for research in these area.
- 3) Capacity building and manpower creation for experts in these areas.
- 4) Developing smart solutions to various governance problem using these systems.
- 5) Establishing India as a hardware manufacturing hub in electronics sector.
- 6) Understanding various risks like cyber attacks etc through these system.

It is in line with policy of developing India as a knowledge economy for 4th industrial revolution.

8. India needs to collaborate and participate in international scientific projects in order to place itself as a major player in cutting edge research. Discuss in the light of ongoing global mega science projects. (150 words) 10

कटिंग एज रिसर्च में स्वयं को एक प्रमुख प्रतिभागी के रूप में स्थापित करने हेतु भारत को अंतर्राष्ट्रीय वैज्ञानिक परियोजनाओं (इंटरनेशनल साइंटिफिक प्रोजेक्ट्स) में सहयोग करने और भाग लेने की आवश्यकता है। वर्तमान में वैश्विक स्तर पर जारी मेगा साइंस प्रोजेक्ट्स के आलोक में चर्चा कीजिए।

International collaboration are important factors in cultivating a world class research environment and participation in major scientific projects.

India has collaborated in following mega science projects:-

- 1) LIGO experiment for detection of gravitational waves.
- 2) A neutrino observatory is planned in the forest of Theni.
- 3) India has research lab in Arctic & Antarctic with collaboration on various research.
- 4) A gene bank in Ladakh.

However, India needs to step up its participation as it has following benefits:-

- 1) Understanding of the evolving applications of new technology. Eg:- Dark matter for space mission & energy projects.
- 2) Participation and honing of domestic human resource through experience.
- 3) Soft power as leading innovator.
- 4) Commercial benefits of new technology can be harnessed.
- 5) Stakeholder in treaties regarding use of new technologies for strategic purpose. Eg:- Lethal Autonomous Weapon System.

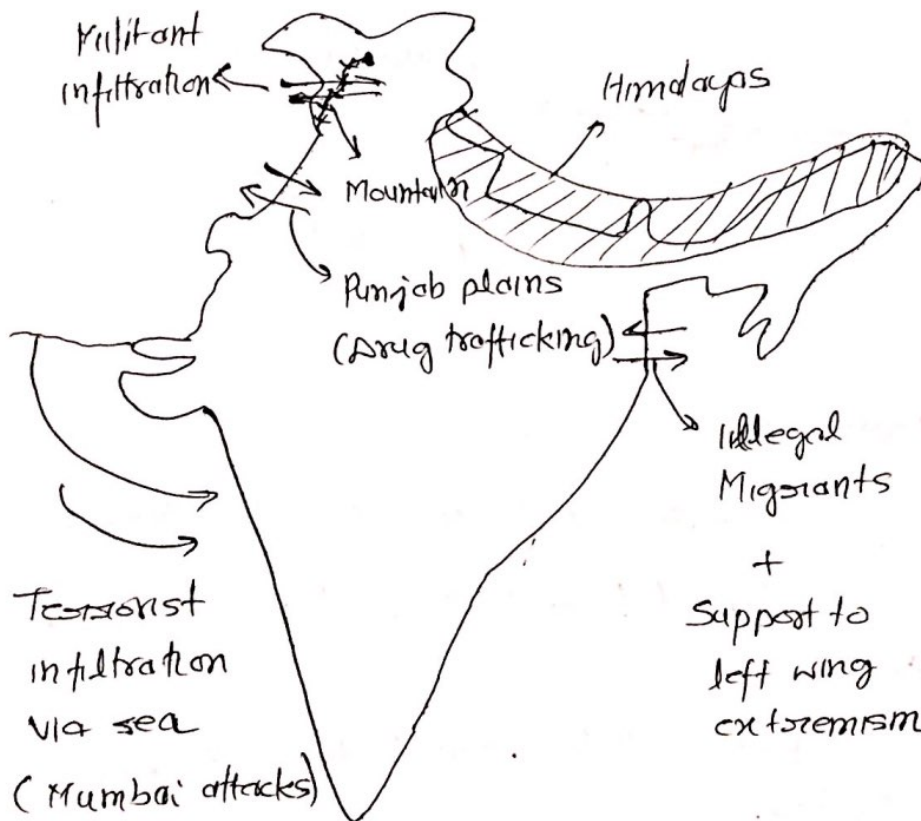
Hence, we need to step up collaboration in science project at regional & global level to reap multiple benefits.

10. In what ways does the physiography of India pose a challenge to its counter-terrorism efforts? What can be done to deal with these challenges?

(150 words) 10

भारत की भूआकृति किस प्रकार इसके आतंकवाद विरोधी प्रयासों के समक्ष एक चुनौती प्रस्तुत करती है? इन चुनौतियों से निपटने के लिए क्या किया जा सकता है?

Indian physiography plays a pivotal role in risk emanating from its borders as seen in infiltration in Kashmir or drug- and human trafficking via Bangladesh.



Thus, due to presence of mountains, desert, marsh, sea and rivers across boundary

Several risk are present.

Following steps can be taken to deal with the challenge :-

- 1) Border Security → Madhukar Gupta committee has recommended use of Comprehensive Integrated Border Mgmt. Systems (CIBMS)



- 2) Remote Sensing.

Use of Resourcesat to monitor borders.

- 3) Laser based boundaries at river crossings.

- 4) Intelligence collaboration to track terror activities.

Hence, a holistic approach of using technology & manpower is way forward.

11. Enhancing private infrastructure spending and revival of stalled projects is critical to the success of Bharatmala Pariyojana. Discuss. Also enumerate measures taken by the government to revive stalled projects on National Highways. (250 words) 15

निजी अवसंरचना व्यय में वृद्धि एवं अवरुद्ध परियोजनाओं का पुनरुद्धार भारतमाला परियोजना की सफलता हेतु महत्वपूर्ण है। चर्चा कीजिए। साथ ही, राष्ट्रीय राजमार्गों से संबद्ध अवरुद्ध परियोजनाओं के पुनरुद्धार के लिए सरकार द्वारा उठाए गए कदमों को सूचीबद्ध कीजिए।

Development of road infrastructure is critical to ensure sustainable growth, industrialization and mobility of freight and passengers. Road transport account for 65% of freight and 85% of passenger movement share in surface transport of India.

Bharatmala → Development of 34,000 km
Pariyojana of national highways in
first phase.

However, the sector is suffering from decrease in private investment due to following reasons:-

- 1) BOT / EPC model → risk transfer to concessionaire.
- 2) Cost and time overruns due to:-
 - ↳ land acquisition delays
 - ↳ litigation due to differences between contractor and government.

- 3) Change in commercial value of projects due to parallel developments.
- 4) Rising NPA in banking sector have reduced access to credit.

However, according to industry estimates an investment of US \$ 6 trillion is required in infrastructure sector between 2016-2030. Thus enhancing private spending and revival of stalled projects is essential.

GoI has taken following steps in this direction :-

1) Funding

- a) HAM model :- combination of EPC (40%) + BOT Annuity (60%) that distributes risk and finance between contractor and GoI.
- b) National Infrastructure Investment Fund.
As an Alternative Investment fund to leverage funds from foreign market.
Eg:- Abu Dhabi Sovereign fund.

c) Infrastructure Investment Trusts (IITs) have been announced in Budget 2018.

d) Recapitalisation of public sector banks to solve NPA crisis.

2) Stalled Projects

a) A high level task force at ministerial level is formed to clear stalled projects.

b) Provision of extra funds for cost and time overruns.

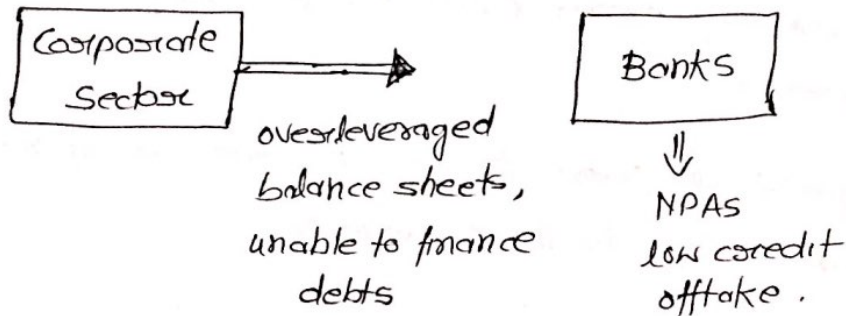
c) Segments of projects are awarded to different contractors to finish projects.

Hence, with these steps a great proportion of projects have been revived and it will help in reducing logistics cost to 10% of GDP by 2022.

12. In the light of increasing NPAs and frauds, the twin balance sheet problem has grown immensely. Comment on the issue and analyse the potential of the Insolvency and Bankruptcy Code to be a game changer for Indian economy's health and long-term growth. **(250 words) 15**

NPAs एवं धोखाधड़ी की बढ़ती घटनाओं के चलते, दोहरे तुलन पत्र (ट्विन बैलेंस शीट) की समस्या में अत्यधिक वृद्धि हुई है। इस मुद्दे पर टिप्पणी कीजिए तथा भारतीय अर्थव्यवस्था की दशा और दीर्घकालिक संवृद्धि के लिए दिवाला एवं दिवालियापन संहिता में एक गेम चेंजर होने की क्षमता का विश्लेषण कीजिए।

The twin balance sheet problem refers to the problem of over-leveraged corporate balance sheet on one hand and high NPAs in the banking sector on the other.



According to Economic Survey 2018 the Gross Fixed Capital formation has reduced 8% from high of 36% to 28% of GDP due to high NPAs.

RBI financial stability report \Rightarrow NPAs expected to increase from 11.6% in March 2018 to 12.2% in March 2019.

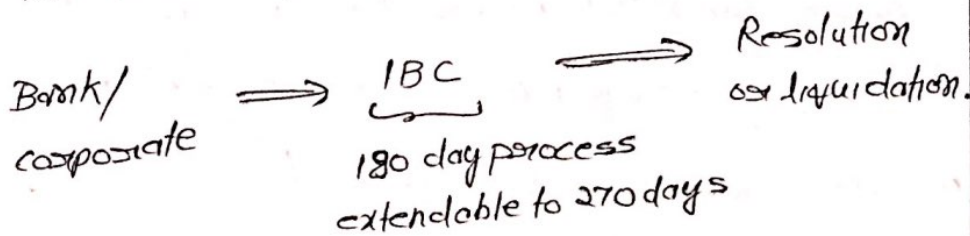
Reason for twin balance sheet problem:-

1) Corporates

- (i) high investments based on optimistic expectations of growth in economy.
- (ii) Global financial crisis led to decrease in demand.
- (iii) Various SC rulings regarding allocation of coal, 2G spectrum result in losses in these sectors.
- (iv) Willful defaulters diverted loans for other purposes.

2) Banks

- (i) Political pressure.
 - (ii) Lack of strict vigilance led to frauds like Kotak scam, Nizam Modi scam etc.
 - (iii) Lack of effective insolvency mechanism.
- Hence, the govt. brought IBC code to speed up the insolvency proceedings for NPA.



It has potential to be game changer as:-

- 1) Solution to long lingering exit problem of economy. (Average time for resolving insolvency was 4.7 yrs)
- 2) Time bound procedure.
- 3) Independent mechanism without any political interference.
- 4) Creditors balance sheets will get boost from the proceeds of insolvency.

However, it faces certain hurdles like:-

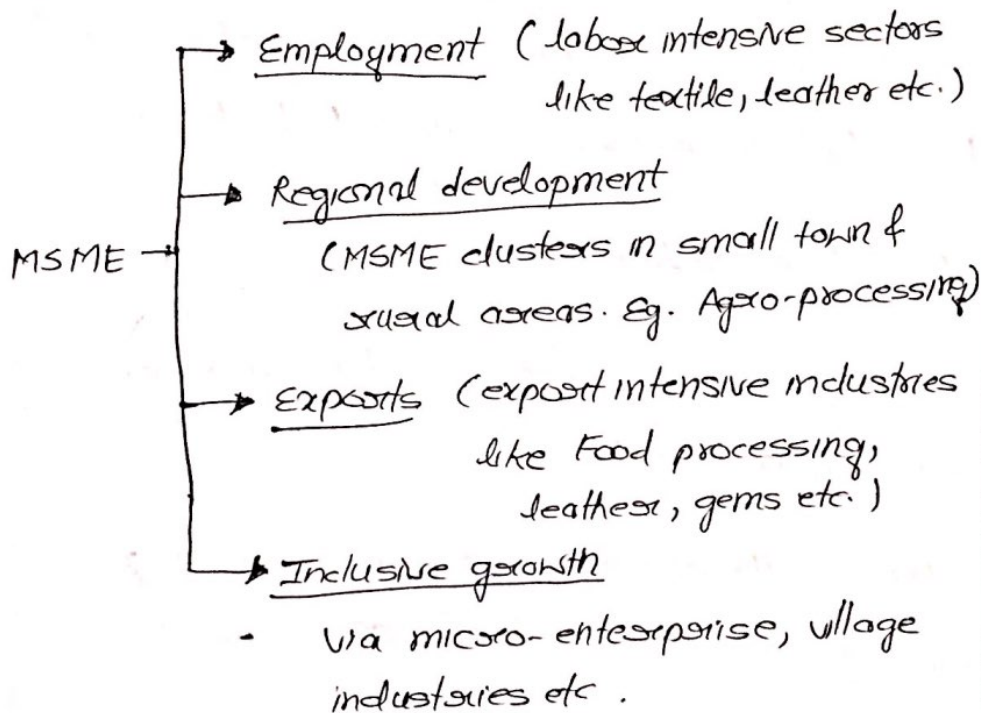
- 1) Poor return for creditors in case of large business in initial proceeding (20%).
- 2) The asset price reduces once it goes into insolvency proceeding.
- 3) Lack of buyers as lot of prospective bidder related to firm are not allowed to participate in auction.

Hence, Smil Mehta panel has recommended a strengthened approach going forward and PROJECT SASHAKT is launched.

13. Highlight the importance of MSME sector in India's economy. Also, identifying the challenges, suggest some policy recommendations to ensure their sustenance and competitive growth. **(250 words) 15**

भारत की अर्थव्यवस्था में MSME क्षेत्रक के महत्व पर प्रकाश डालिए। साथ ही, चुनौतियों की पहचान करते हुए उन्हें संपोषित करने और उनके प्रतिस्पर्धात्मक वृद्धि को सुनिश्चित करने के लिए कुछ नीतिगत अनुशंसाओं का सुझाव दीजिए।

MSME sector refers to firm with investment in equipments less than 50 crore for industry and less than 20 crore for services. It plays following role in Indian economy.



However, the industry faces several challenges like:-

- 1) Access to credit → Poor as they lack collateral and access to formal banking channels.

2) Labour laws :- strict labour laws deter their expansion and they ~~are~~ remain small in scale

3) Competitiveness :- Low export competitiveness due to low labour productivity, high cost of logistics, and lack of linkages to global supply chains.

4) Technology :- Most use obsolete machinery and have lack of access to latest technology.

5) Lack of skilled labour

6) Entrepreneurship skills :- Lacking in several SHG based MSMEs

Due to their contribution in inclusive growth, following steps need to be taken to ensure their growth :-

1) Policy changes :- changing definition of MSME to revenue based so that it doesn't act deterrent to investment in machinery.

2) Finance :- Using peer to peer lending, NBFCs and priority sector lending to ensure cheap & timely credit.

3) Labor Laws :- Quick adoption of code on wages, industrial relation, social security bill to rationalize laws.

4) Technology :- Technology transfer from foreign collaboration: Investment in R&D via industry-academia linkage.

5) Formation of MSME clusters to reduce cost of logistics. Eg:- Coastal Economic Zones.

6) Special Packages and export incentives. Eg:- special package to leather industry.

GoI has taken several steps like capital link subsidy program, World MSME conference and infrastructure status to Logistics to improve MSME condition.

14. Going forward, the allied sectors will play a critical role in increasing the resilience and improving economic returns in agriculture. Discuss. (250 words) 15

आगामी समय में, संबद्ध क्षेत्रक कृषि में लचीलापन बढ़ाने एवं आर्थिक प्रतिफल में सुधार लाने में एक महत्वपूर्ण भूमिका निभाएंगे। चर्चा कीजिए।

Allied sector refers to a host of ~~of~~ primary sector activities other than crop based farming. eg:- Fisheries, Forestry, Livestock etc. It will play a critical role in future as:-

- 1) With rise of living standards demand of products like egg, milk & fish will rise.
- 2) Scope of value addition is high.

Role in resilience :-

- 1) Livestock acts as a bank against crisis like flood, droughts etc.
- 2) Grazing crops can be sown on barren lands with limited water requirement.
- 3) Scope of utilizing Exclusive Economic Zone for fisheries to prevent overfishing.
- 4) Integrated farming system will focus on whole ecosystem in the farm field. eg:- organic manure, apiculture etc.

Increasing farming income :-

- 1) Livelihood diversification will reduce pressure on land.
- 2) Extra income through primary processing, value addition, exports via FPOs, cooperatives.
- 3) Products like cow dung can be use for creation of bio energy. Eg:- EroBAR Dhan scheme.
- 4) Livestock products can be used as input in fields reducing input costs. Eg:- Zero Budget natural farming.

According to Economic Survey 2018

The share of allied sector in agriculture GVA has increased from 30% to 35% showing structural change in this sector :

∴ Govt. has taken following steps to support the sector :-

- 1) Dairy Infrastructure & Development fund to increase reach of cooperatives to more villages.

- 2) Bamboo has been removed from classification as free to encourage bamboo forestry.
- 3) Blue economy & revolution to develop fishiculture, aquaculture & mariculture.
- 4) GOBAR Dhan scheme to harness livestock waste for energy generation.

Ashok Dalwai Committee on doubling farming income has also suggested focus on allied sectors to enhance climate resilience and increase farm income.

15. What do you understand by Seed Replacement Rate? Explaining the concept of breeder, foundation and certified seeds, highlight the major policy initiatives taken in order to address the challenge of quality seed availability to farmers. (250 words) 15

बीज प्रतिस्थापन दर (सीड रिप्लेसमेंट रेट) से आप क्या समझते हैं? ब्रीडर, फाउंडेशन और प्रमाणित बीजों की अवधारणा की व्याख्या करते हुए, किसानों के लिए गुणवत्तापरक बीजों की उपलब्धता की चुनौती का समाधान करने हेतु की गई प्रमुख नीतिगत पहलों पर प्रकाश डालिए।

Seed Replacement Rate refers to the ratio of new seeds to the seeds taken from the crops sown on the same field. It reflects the rate of replacement of seed in a farm.

Importance of seed replacement ratio :-

- 1) Improves productivity and yield.
- 2) Improves soil health.
- 3) Increase in farm income.
- 4) Reduction in diseases due to pest.

A new seed development happens in several phases before it is sold to the farmer as shown in figure below.

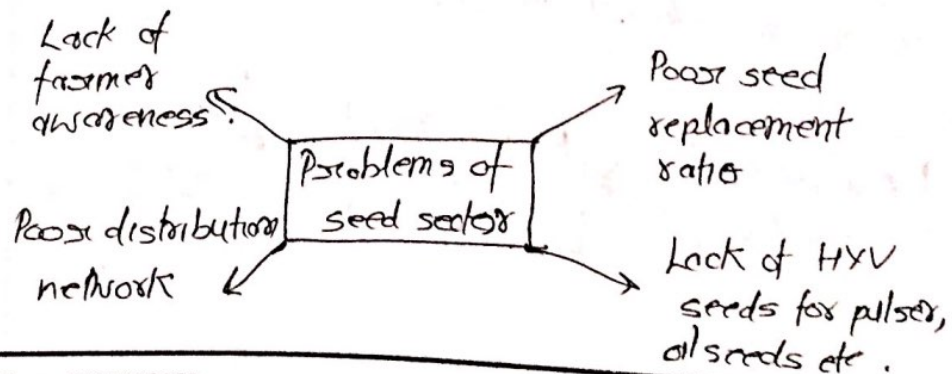


Breeder seeds :- They are first generation seeds developed in the labs of institutes affiliated to ICAR.

Foundation seeds :- Second generation seeds developed from sowing the breeder seeds. They are distributed to seed manufacturing companies.

Certified seeds :- Third generation seeds developed by seed manufacturing companies to be sold to farmers.

Hence, the seed plays an important role in determining amount of inputs and final yield of crop. Developing high yielding variety seeds is ~~the~~ important to increase production as crop land is limited.



GOI has taken following step to improve the seed replacement station to 100%.

1) Development of new breedest seeds at Agriculture research universities for pulses, oil seeds, fisheries etc.

2) Seed village program :- Where a village is dedicated to cultivation for production of seeds.

3) Encouraging FPOs
↳ seed production (manufacturing units at village level)
↳ farmers awareness

4) RKVY - Raftaar
It will focus on crop diversification in Green revolution area by distribution of seeds.

Thus improving seeds along with other inputs like fertilizers, pesticides, irrigation will help in improving crop yields and doubling farmers' income.

16. While overcrowding in public places cannot be wished away in India, what we need are better infrastructure and more effective crowd-control measures. Comment. Also, briefly enumerate NDMA guidelines for crowd management. **(250 words) 15**

यद्यपि भारत में सार्वजनिक स्थलों पर अत्यधिक भीड़भाड़ को कम नहीं किया जा सकता है, तथापि हमें बेहतर अवसंरचना और अधिक प्रभावी भीड़-नियंत्रण उपायों की आवश्यकता है। टिप्पणी कीजिए। साथ ही, भीड़ प्रबंधन के लिए NDMA के दिशानिर्देशों को संक्षेप में सूचीबद्ध कीजिए।

Overcrowding in public place leading to stampedes, failure of infrastructure leads to critical injuries and loss of lives as seen in stampede at Elphinstone foot over bridge in Mumbai last year. Overcrowding is inevitable as:-

- 1) High population density in urban areas with lack of sufficient infrastructure.
- 2) Mass transport systems like metros, buses are overburdened.
- 3) Public festivals and processions like Dusshera, new year celebrations etc.
- 4) Crowding in closed spaces like cinema halls, public offices etc.
- 5) Other places and occasions like election rallies, independence day celebrations etc.

Hence, a better infrastructure and effective crowd control is the solution with following components:-

- 1) Public transport :- Multimodal solutions and increase frequency in rush hours. Eg:- Metro - Bus can complement each other.
- 2) Places where public gathering is expected like railway foot over bridges etc. need to be engineered for high numbers.
- 3) Crowd control → Multiple entry and exit points
 - ↳ Loudspeakers for information dissemination.
 - ↳ ~~but~~ diverting crowd through alternate channels. Eg:- one way roads.
 - ↳ pre-planning at various levels before important events.
 - ↳ identifying and widening choke points
- 4) Emergency response services like fire brigade, ambulance near gatherings.

NOMA has provided following guidelines regarding crowd management:-

- 1) Prevent concentration near choke points
- 2) Prevent panic situation like rumors, fights etc.
- 3) Use of tear gas, water cannons in case of violent crowd gatherings.
- 4) Declaring certain areas as crowd free zones.

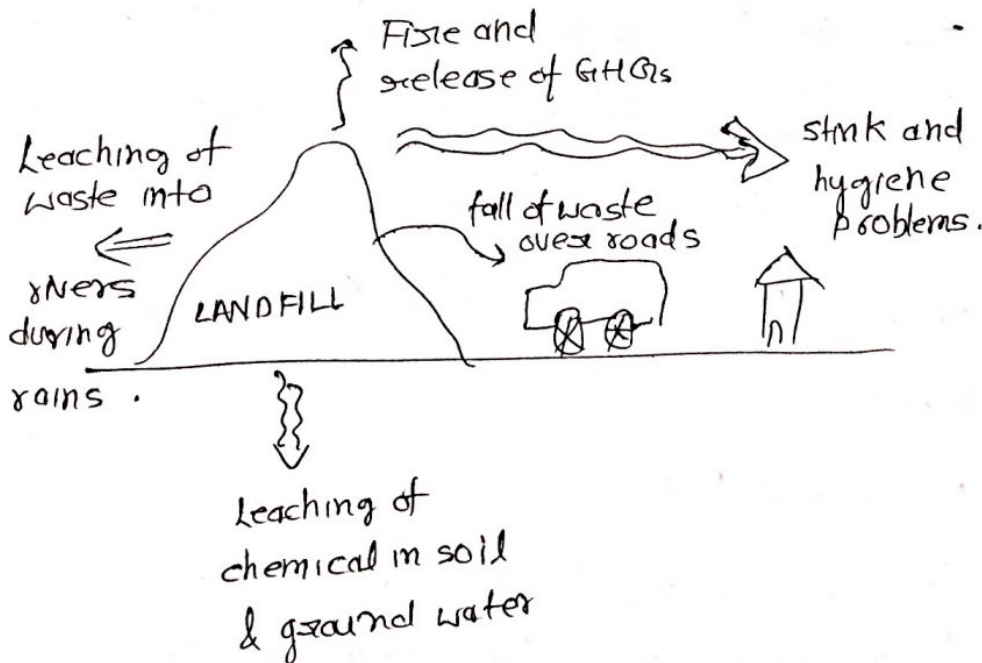
Hence, with increasing population and rapid urban migration the situation may worsen.

Thus, two pronged approach of infrastructure provision and crowd management is way forward.

17. Processing and safe disposal of garbage must replace the current model of landfills in order to transform our cities to being 'smart'. Elucidate. In this context, analyse the reasons for failure of waste management policies in India. (250 words) 15

हमारे शहरों को 'स्मार्ट' बनाने के लिए भूमिभराव (लैंडफिल) के वर्तमान मॉडल को अपशिष्ट के प्रसंस्करण और सुरक्षित निपटान से प्रतिस्थापित किया जाना चाहिए। स्पष्ट कीजिए। इस संदर्भ में, भारत में अपशिष्ट प्रबंधन नीतियों की विफलता के कारणों का विश्लेषण कीजिए।

The problem of solid waste management and dumping of waste is key issue faced by urban centres. The current model of landfills create following problems:-



currently Indian cities create 62 million tonnes of waste annually with processing capacity of only 17 million ~~tonnes~~ according to NITI Aayog.

Following problems can be identified in major cities:-

- 1) Delhi → Garbage waste collapse.
- 2) Bengaluru → pollution of lakes and lake fronts.
- 3) Mumbai → unhygienic conditions in slums of Dharavi due to nearby landfill sites.

Thus, the transformation of our cities to smart won't be complete without efficient waste management.

It has failed till now due to following factors:-

- 1) Urban local bodies.
 - ↳ poor capacity to collect all wastes.
 - ↳ the capacity of treatment plants is limited
 - ↳ lack of collection of user charges leads to poor funds.

2) Citizens

- ↳ Lack of segregation of wastes.
- ↳ High organic content / wet waste result in poor efficiency of waste to energy plants.
- ↳ use of single-use plastics.

3) Industry

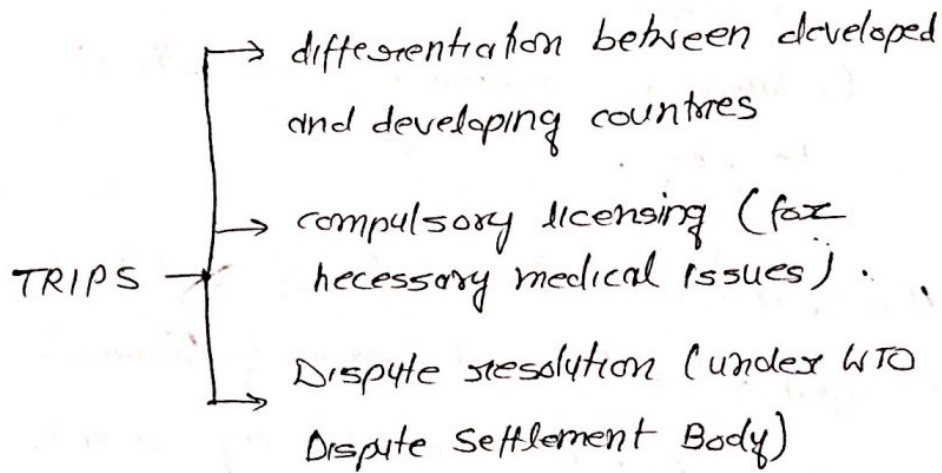
- ↳ extended producers' responsibility is not followed.
- ↳ dumping of industrial waste without recycling.

Hence, proper implementation of Solid Waste-Management Rules and improving finance through municipal bonds is way forward.

18. What do you understand by TRIPS plus provisions being advocated by developed countries outside the WTO based TRIPS agreement? Do you think India should show some flexibility and incorporate certain TRIPS plus provisions in its IPR regime? **(250 words) 15**

विकसित देशों द्वारा WTO आधारित ट्रिप्स (TRIPS) समझौते से बाहर अनुशंसित किए जा रहे ट्रिप्स-प्लस प्रावधानों से आप क्या समझते हैं? क्या आपके विचार से भारत को कुछ लचीलापन दिखाना चाहिए एवं अपनी IPR व्यवस्था में कुछ ट्रिप्स-प्लस प्रावधानों का समावेश करना चाहिए?

Trade Related Aspect of Intellectual Property Right is framework agreement under WTO that governs IPR laws related to trade between different countries.



Hence, TRIPS provides safeguard to IPR along with considerable leeway to developing countries to protect their interests.

Some developed countries like USA have advocated for TRIPS plus which

has following provision:-

- 1) A more strict IPR protection regime based on US IPR laws.
- 2) Dispute settlement through bilateral mechanisms.
- 3) ~~IPR~~ IPR as part of FTAs and investment agreements.

Accepting TRIPS plus has following pros and cons:-

Pros

- 1) Increase in bilateral trade through FTAs.
- 2) Increase in FDI by MNCs as their ~~IPR~~ IPR are protected.
- 3) India can use it as leverage for concession in ~~mer~~ services and human capital movement.

Cons

- 1) It will lose differentiation available for developing countries under WTO.
- 2) Protection to agri. sector like GM crops IPR will be gone.
- 3) Independent dispute resolution will not be available.

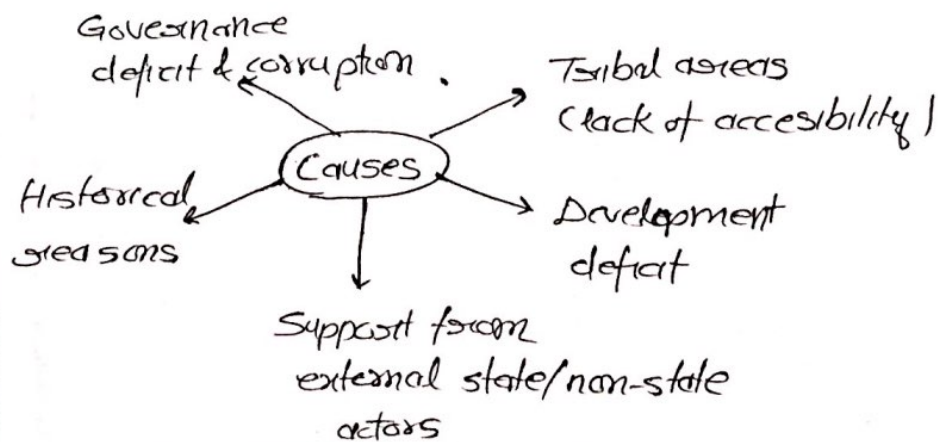
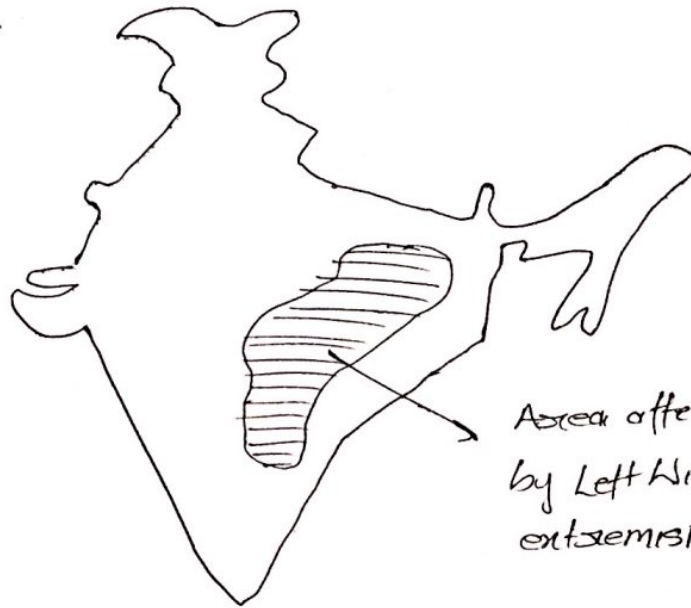
Since, current IPR protection in India are critical for growth of agriculture, pharmaceutical sector, it will be in India's interest to work under WTO based multilateral order.

As a concession, amendment in WTO based TRIPS can be considered with wider consensus.

20. The Government has adopted a holistic approach built around simultaneous implementation of a security agenda, developmental activities and promotion of good governance to address the Left Wing Extremism in India. Comment. **(250 words) 15**

सरकार ने भारत में वामपंथी उग्रवाद (लेफ्ट विंग एक्सट्रीमिज़्म) से निपटने के लिए सुरक्षा एजेंडे, विकास संबंधी गतिविधियों और सुशासन के प्रचार-प्रसार के समकालिक कार्यान्वयन के चारों ओर निर्मित एक समग्र दृष्टिकोण अपनाया है। टिप्पणी कीजिए।

Left wing extremism has remained a single largest internal security threat in the country and still covers around 95 districts.



According to the expert group report on left wing extremism (2007), the development paradigm followed since independence has led to alienation of tribal and exacerbated the problem.

Thus, a multipronged approach was adopted by government :-

1) Security

- Operation Thunderbird was launched to target Naxal refuges.
- Increase in road connectivity has led to incursions by security forces in most of the areas.
- Intelligence network to keep track on activities.
- Identifying and removing links to external actors for arms and money supply.

2) Development

- Construction of roads increase accessibility.
- Provision of services like nutrition, Anganwadi, education (Kasturba Gandhi

Balika Vidyalaya etc.)

→ Recognition of forest rights via Forest Rights Act 2008

Governance

→ PESA Act 1995 provided self-governance to all tribal areas.

→ Authority of gram sabha over minor forest produce, minor mineral license etc.

→ Gram sabha is the authority to decide beneficiary under Forest Rights Act.

→ Tribal Area Development Program.

Hence, while left wing extremism is at its minima in the present situation, it is important to focus on socio-economic development so that it never gets fertile ground for a comeback.